

Appendix

GLOSSARY

The following is a list of definitions of terms that are unique or nearly unique to project management. Also included are terms that are not unique to project management, but are used differently or with a narrower meaning than in general everyday usage. Many of the terms have broader, or sometimes different, dictionary definitions.

Acceptance Testing. The performance of all testing necessary to demonstrate that installed equipment and/or systems will operate satisfactorily and safely in accordance with plans and specifications. It includes hydrostatic, pneumatic, electrical, ventilation, mechanical functioning, and run-in tests of equipment, portions of systems, and finally of completed systems. (DOE 4700.1, chg. 1)

Accrued Cost. Amounts owed for items or services received, expenses incurred, assets acquired, or construction performed, for which a bill (e.g., progress billing, and other billings) has not yet been received or approved. (DOE Cost Accounting Handbook)

In an earned-value context accruals represent cost (liability) for work performed, and thus costs incurred, for the reporting period even though the bills have not yet been received. Thus accruals are included in the Actual Cost of Work Performed (ACWP) when reporting performance in the earned value system. It is essential that the accrual methodology be consistent with the time phasing of the Budgeted Cost of Work Scheduled (BCWS). Note that the time phased BCWS should be consistent with the contractual obligations for procurement of goods and services.

Accountability. The requirement, obligation, or willingness of an individual to accept responsibility for the outcome, results and consequences of their actions and decisions. In a project setting, accountability is inseparable from authority and responsibility.

Accountability Matrix. See RESPONSIBILITY ASSIGNMENT MATRIX.

Acquisition Executive (AE). The individual designated by the Secretary of Energy to integrate and unify the management system for a project, and monitor implementation of prescribed policies and practices. Approves the initiation of a major system project (or a selected other project) and its transition through phases of the acquisition process and other sub-phases involving major commitments. Selects from among competing systems those that are to be advanced to development, demonstration, and production/operation, and authorizes development of a noncompetitive (single concept) system. (DOE 4700.1, chg. 1)

Acquisition Performance Baseline (APB). Includes all cost, schedule, and performance parameters (both objectives and thresholds) for a program/project. It represents the DOE commitment to Congress to assess Total Project Cost (TPC). Key elements in formulating an APB include the integration and assessment of program/project scope, schedule, and

cost baselines; a systematic risk analysis, and the development and inclusion of adequate risk allocation to address factors that might cause technical/schedule/cost growth during project performance. Project completion without an increase in the APB thresholds or extending the schedule, is the primary measure of success in formulating the APB.

Acquisition Plan (AP). Provides the procurement and contracting detail for elements of a program, project, or system. A formal written document reflecting the specific actions necessary to execute the approach established in the approved acquisition strategy and any appropriate guiding documentation. The AP is performance-oriented and provides the framework for conducting and accomplishing a project following MNS approval.

Acquisition Planning. The process by which the efforts of all personnel responsible for an acquisition are coordinated and integrated through a comprehensive plan for fulfilling the agency need in a timely manner and at a reasonable cost. It is performed throughout the acquisition's life cycle and starts with developing an overall acquisition strategy for managing the acquisition after MNS approval; and, from a project standpoint, goes to project turnover.

Acquisition Program/Project. Acquisition programs and projects are distinct elements of work, equal to or greater than \$5 million, regardless of the funding source or type, that deliver or create a product, service, or capability, with a specified beginning and end, a stated cost, and expected performance objectives. They are directed, funded efforts whose purpose is to provide a useful, material capability in response to a validated mission or business need. An acquisition program may be facility construction, infrastructure repairs or modifications, system, production capability, remediated land, closed site, disposal effort, software development, information technology, space system, research capability, or other asset.

Acquisition programs, as they related to projects, are generally made up of multiple projects, related by a common mission, in which each project remains a useful segment and able to perform it's intended function.

Acquisition Proponent. The DOE component having the primary responsibility for research, development, demonstration, production or operation of a major system project (to include, when applicable, the system for its logistic support) that meets Departmental objectives in carrying out DOE missions. (DOE 4700.1, chg. 1)

Acquisition Strategy (AS). A business and technical management approach designed to achieve acquisition objectives within the resource constraints imposed. It is the framework for planning, directing, contracting, and managing a system, program, or project. It provides a master schedule for research, development, test, production, construction, modification, postproduction management, and other activities essential for success. The AS is the basis for formulating functional plans and strategies (e.g., acquisition strategy, competition, systems engineering, etc.). Once approved, it should reflect the approving authority's decisions on all major aspects of the contemplated acquisition. See ACQUISITION PLAN. (DAD Glossary)

Activity. An element of work performed during the course of a project. An activity normally has an expected duration, an expected cost, and expected resource requirements. Activities are often subdivided into tasks.

Actual Cost of Work Performed (ACWP). Total costs incurred (direct and indirect) in accomplishing an identified element or scope of work during a given time period. See also EARNED VALUE.

Acquisition Performance Baseline (APB). A quantitative expression reflecting total scope of a project with integrated technical, schedule, and cost elements. It is the established risk adjusted, time-phased plan against which the status of resources and the progress of a project(s) is measured, assessed, and controlled. It is a federal commitment to OMB and Congress. Once established, baselines are subject to change control discipline (modified). (DoD glossary and DOE 4700)

Administrative Closure. Generating, gathering, and disseminating information to formalize project completion.

Allowance. An incremental amount (technical margin, cost and schedule contingency) that is made part of an estimate or baseline and is expected to be required/costed when complete. It is normally developed from experience or risk analysis.

Authority. The power or right granted or assigned to an individual to (a) lead, guide, and direct an activity, (b) make decisions, (c) authorize action, and (d) influence or control other individuals. In a project setting, authority is inseparable from accountability and responsibility.

Backfit. The imposition of a new or proposed nuclear safety requirement that dictates the modification of, or addition to: (1) systems, structures, and components of a facility; (2) the existing or approved design of a facility; or (3) the procedures or organization required to design, construct, or operate a facility. (DOE Glossary)

Bar Chart. A graphic display of schedule-related information. In the typical bar chart, activities or other project elements are listed down the left side of the chart, dates are shown across the top, and activity durations are shown as date-placed horizontal bars. Also called a GANTT CHART.

Benchmarking. An improvement process in which an organization, agency or company measures its performance against that of best-in-class organizations, agencies, or companies; determines how those organizations, agencies, or companies achieved their performance levels; and uses the information to improve its own performance. Benchmarking can compare strategies, operations, processes, and procedures. (DOE Glossary)

Beneficial Use or Occupancy Date. The process by which a facility, portions thereof, or the last piece of principal equipment, is released for use by others, prior to final acceptance. Non-integral or subsidiary items and correction of design inadequacies subsequently brought to light may be completed after this date. On multiple-facility projects, beneficial use of the overall project will be the beneficial use date of the last major building or

facility. This activity is always documented and approved by the responsible parties. (DOE 4700.1, chg 1)

Breach. A project breach occurs when the current estimate of a performance, technical, schedule, or cost parameter is not within the threshold value (APB) for that parameter. It is handled as a deviation, not through the normal change control system.

Budget at Completion (BAC). The total authorized budget for accomplishing the program scope of work. It is equal to the sum of all allocated budgets plus any undistributed budget. (Management Reserve is not included.) The BAC will form the APB as it allocated and time-phased in accordance with program schedule requirements. (EIA 748)

Budgeted Cost of Work Performed (BCWP). The sum of the approved cost estimates (including any overhead allocation) for activities (or portions of activities) completed during a given period (usually project-to-date). See also EARNED VALUE.

Budgeted Cost of Work Scheduled (BCWS). The sum of the approved cost estimates (including any overhead allocation) for activities (or portions of activities) scheduled to be performed during a given period (usually project-to-date). See also EARNED VALUE.

Capital Assets. Land, structures, equipment, systems, and information technology (e.g., hardware, software, and applications) that are used by the Federal Government and have an estimated useful life of 2 years or more. Capital assets include environmental restoration (decontamination and decommissioning) of land to make useful leasehold improvements and land rights, and assets whose ownership is shared by the Federal Government with other entities. This does not apply to capital assets acquired by state and local governments or other entities through DOE grants. Capital Assets do not include intangible assets, such as the knowledge resulting from research and development and education and training. See PHYSICAL ASSET.

Change Control Board (CCB). A multi-discipline functional body of representatives designated and chartered by the appropriate management level to ensure the proper definition, coordination, evaluation, and disposition of all proposed changes. (DOE 4700.1, chg 1)

Change in Scope. A change in objectives, work plan, costs, or schedule that results in a material difference from the terms of an approval-to-proceed previously granted by higher authority. Under certain conditions, stated in the approval instrument, change in resources application may constitute a change in scope. Under contractual agreement, COs are the only Government personnel authorized to issue a change order of contract modification to a contractor/performer, in order to implement a change of scope. A change in scope may also affect the availability of current year funds until the proper congressional notification procedures have been executed. (DOE 4700.1, chg 1)

Change Proposal. The instrument/document prepared to provide a complete description of a proposed change and its resulting impact on a project objectives. (DOE 4700.1, chg 1)

Chart of Accounts. Any numbering system used to monitor project costs by category (e.g., labor, supplies, materials). The project chart of accounts is usually based upon the

corporate chart of accounts of the primary performing organization, and is directly linked to the project's work breakdown structure. See also CODE OF ACCOUNTS.

Code of Accounts. Any numbering system used to uniquely identify each element of the work breakdown structure. See also CHART OF ACCOUNTS.

Commissioning. Commissioning is a systematic process for achieving, verifying, and documenting that the performance of the facility and its various systems meet the design intent and the functional and operational needs of the owners, users, and occupants. The process extends through all phases of a project, from conceptualization to occupancy and operation, with numerous checks at each stage of the process to ensure that established procedures are followed.

Commitment. An administrative reservation of funds, prior to creation of an obligation. A commitment is based upon a valid request for procurement that authorizes the creation of an obligation without further recourse to the official responsible for assuring the availability of funds. (Note: This definition concerns commitments in the accounting sense and therefore differs from loan guarantee commitments.) (DOE Glossary)

Communications Planning. Determining the information and communications needs of personnel, support personnel, management, and project stakeholders.

Conceptual Design. Conceptual design encompasses those efforts to: (a) develop a project scope that will satisfy program needs; (b) assure project feasibility and attainable performance levels; (c) develop reliable cost estimates and realistic schedules in order to provide a complete description of the project for Congressional consideration; and (d) develop project criteria and design parameters for all engineering disciplines, identification of applicable codes and standards, quality assurance requirements, environmental studies, materials of construction, space allowances, energy conservation features, health safety, safeguards, and security requirements, and any other features or requirements necessary to describe the project. Conceptual design occurs between CD-0 and CD-1. (DOE 4700.1, chg 1)

Conceptual Design Report (CDR). The CDR documents the outcome of the conceptual design phase and forms the basis for a preliminary ROM baseline.

Conditional or Provisional Acceptance. The acceptance of a unit or facility with a documented listing of the specific testing to be accomplished or work remaining including the furnishing of any outstanding submittals of technical and record data, to be completed by the construction contractor, and on or by what date the actions are scheduled to be complete.

Configuration. The functional and/or physical characteristics of hardware, firmware and/or software, or any of their discrete portions, as set forth in technical documentation and achieved in a product. Configuration items may vary widely in complexity, size, and type, from a facility, electronic, or control system to a test meter or process vessel. Any item required for logistic support and designated for separate procurement is a configuration item.

Configuration Acceptance. The systematic evaluation, coordination, approval (or disapproval), documentation, implementation, and audit of all approved changes in the configuration of a product after formal establishment of its configuration identification.

Configuration Management. The technical and administrative direction and surveillance actions taken to identify and document the functional and physical characteristics of a configuration item; to control changes to a configuration item and its characteristics; and to record and report change processing and implementation status. (DAD Glossary)

Construction. Any combination of engineering, procurement, erection, installation, assembly, demolition, or fabrication activities involved in creating a new facility, or to alter, add to, rehabilitate, dismantle, or remove an existing facility. It also includes the alteration and repair (including dredging, excavating, and painting) of buildings, structures, or other real property, as well as any construction, demolition, and excavation activities conducted as part of environmental restoration or remediation efforts. Construction occurs between CD-3 and CD-4. Construction does not involve the manufacture, production, finishing, construction, alteration, repair, processing, or assembling of items categorized as personal property. (DOE 4700.1, chg 1)

Construction/As-built Services. Those activities required to assure that the project is constructed in accordance with the plans and specifications (e.g., construction inspection), and that the quality of materials and workmanship is consistent with the requirements of the project (e.g., materials testing). (See DEAR 936.605(c)(3) and (4), and DEAR 952.236.70 for additional details.)

Construction Completion Date. The date on which work normally performed by construction forces (including installation of equipment by operating contractors or others) is accepted by the Government. This includes the completion of all building items, the erection and/or installation of mechanical units and/or processing equipment, and the installation of all furnishings as required to make a fully functioning building, facility, or process. Correction of minor deficiencies and exceptions may be accomplished after the recorded date. (DOE 4700.1, chg 1)

Construction Management. Services that encompass a wide range of professional services relating to the management of a project during the pre-design, design, and/or construction phases. The types of services provided include development of project strategy, design review relating to cost and time consequences, value management, budgeting, cost estimating, scheduling, monitoring of cost and schedule trends, procurement, observation to assure that workmanship and materials comply with plans and specifications, contract administration, labor relations, construction methodology and coordination, and other management efforts related to the acquisition of construction. (DOE 4700.1, chg 1)

Contingency. Contingency is that budget held by DOE that is not put on contract.

Contract. A contract is a mutually binding agreement that obligates the seller to provide the specified product and obligates the buyer to pay for it. It includes all types of

commitments that obligate the Government to an expenditure of funds and which, except as otherwise authorized, are in writing. In addition to a two-signature document, it includes all transactions resulting from acceptance of offers by awards or notices of awards; agreements and job orders or task orders issued thereunder; letter contracts; letters of intent; and orders, such as purchase orders under which the contract becomes effective by written acceptance or performance. It also includes contract modifications. Contracts generally fall into one of three broad categories: (a) Fixed price or lump sum contracts—this category of contract involves a fixed total price for a well-defined product. Fixed price contracts may also include incentives for meeting or exceeding selected project objectives such as schedule targets. (b) Cost reimbursable contracts—this category of contract involves payment (reimbursement) to the contractor for its actual costs. Costs are usually classified as direct costs (costs incurred directly by the project, such as wages for members of the project team) and indirect costs (costs allocated to the project by the performing organization as a cost of doing business, such as salaries for corporate executives). Indirect costs are usually calculated as a percentage of direct costs. Cost-reimbursable contracts often include incentives for meeting or exceeding selected project objectives such as schedule targets or total cost. (c) Unit price contracts—the contractor is paid a preset amount per unit of service (e.g., \$70 per hour for professional services or \$1.08 per cubic yard of earth removed) and the total value of the contract is a function of the quantities needed to complete the work.

Contract Advance Funding. Obligations to a contract or project, to cover future work or materials not yet ordered. The value of advanced funding is the difference between uncosted obligation and unfilled orders outstanding. (DOE 4700.1, chg 1)

Contract Closeout. Completion and settlement of the contract including resolution of all outstanding items.

Contracting Officer's Technical Representative (COTR). The individual in DOE who is assigned responsibility for overall technical monitoring of a contract and identified as such in the contract. The COTR monitors the technical work performed under the contract, evaluates the contractor's performance, provides the contractor and the contracting officer with technical guidance, reports on contract status to DOE program and project management, and recommends corrective action when necessary. Each project IPT will include a CO or COTR. (DOE 4700.1, chg 1)

Control (Cost) Account. A management control point at which budgets (resource plans) and actual costs are accumulated and compared to earned value for management control purposes. A control account is a natural management point for planning and control since it represents the work assigned to one responsible organizational element on one work breakdown structure element and is the lowest level where all three PMB elements are accumulated. (EIA-748).

Corrective Action. Changes made to bring expected future performance of the project into line with the plan.

Cost Budgeting. Allocating the cost estimates to individual project components.

Cost Control. Controlling changes to the project budget and forecast to completion.

Cost Estimate. A documented statement of costs estimated to be incurred to complete the project or a defined portion of a project. Cost estimates provide input to original baselines and changes to baselines, against which cost comparisons are made throughout the life of a project.

Cost Estimating. Estimating the cost of the resources needed to complete project activities.

Cost Plus Fixed Fee (CPFF) Contract. A type of contract where the buyer reimburses the seller for the seller's allowable costs (allowable costs are defined by the contract) plus a fixed amount of profit (fee).

Cost Plus Incentive Fee (CPIF) Contract. A type of contract where the buyer reimburses the seller for the seller's allowable costs (allowable costs are defined by the contract), plus a fee calculated on the basis of defined performance criteria.

Cost Variance. It is the algebraic difference between earned value and actual cost ($\text{Cost Variance} = \text{Earned Value} - \text{Actual Cost}$.) A positive value indicated a favorable position and a negative value indicates an unfavorable condition. (EIA-748)

Costs to Date. Costs incurred to date by the contractor and reported to DOE, which are recorded as accrued costs. They represent all charges incurred for goods and services received and other assets required, regardless of whether payment for the charges has been made. This includes all completed work and work in process chargeable to the contract. Accrued costs include invoices for: (1) completed work to which the prime contractor has acquired title; (2) materials delivered to which the prime contractor has acquired title; (3) services rendered; (4) costs billed under cost reimbursement, or time and material subcontracts for work to which the prime contractor has acquired title; (5) progress payments to subcontractors that have been paid or approved for current payment in the ordinary course of business (as specified in the prime contract); and, (6) fee profit allocable to the contract. (DOE 4700.1, chg 1)

Critical Activity. Any activity on a critical path or with a zero or negative float value. Most commonly determined by using the critical path method. Although some activities are "critical" in the dictionary sense without being on the critical path, this meaning is seldom used in the project context.

Critical Decision (CD). A formal determination, made by the AE at a specific point in a project life cycle that allows the project to proceed. CDs occur in the course of a project. For example: prior to commencement of conceptual design, commencement of execution and prior to turnover. (DOE Order 430.1)

Critical Path. In a project network diagram, the series of logically linked activities that determine the earliest completion date for the project. The critical path may change from time to time as activities are completed ahead of or behind schedule. Although normally calculated for the entire project, the critical path can also be determined for a milestone or

subproject. The critical path is usually defined as those activities with float less than or equal to a specified value, often zero.

Critical Path Method. A network analysis technique used to predict project duration by analyzing which sequence of activities (which path) has the least amount of scheduling flexibility (the least amount of float). Early dates are calculated by means of a forward pass using a specified start date. Late dates are calculated by means of a backward pass starting from a specified completion date to result in zero total float for each activity.

Deactivation. The process of placing a facility in a stable and known condition including the removal of readily removable hazardous and radioactive materials to ensure adequate protection of the worker, public health and safety, and the environment, thereby limiting the long-term cost of surveillance and maintenance. Actions include the removal of fuel, draining and/or de-energizing nonessential systems, removal of stored radioactive and hazardous materials, and related actions. Deactivation can also include disposition of wastes generated during deactivation efforts. Deactivation does not include all decontamination necessary for the dismantlement and demolition phase of decommissioning, e.g., removal of contamination remaining in the fixed structures and equipment after deactivation.

Decommissioning. The process of closing and securing a nuclear facility or nuclear materials storage facility so as to provide adequate protection from radiation exposure and to isolate radioactive contamination from the human environment. (DOE Glossary)

Decontamination. The removal of a chemical, biological, or radiological contaminant from, or neutralizing its potential effect on, a person, object or environment by washing, chemical action, mechanical cleaning, or other techniques. Deactivation may also include treatment and disposal of wastes generated during decontamination efforts. (DOE Glossary)

Definition. A term coined to define the time period in a project's life cycle between CD-0 and CD-1, i.e., all pre-acquisition planning/pre-acquisition design and conceptual design activities and actions.

Deviation. A project deviation occurs when the current estimates of cost, schedule, or performance are not within the threshold value established in the APB. See **BREACH**.

Directed Change. A change imposed on a project(s), with direction to implement, that affects one or more of the project's (projects') baselines. Example of directed changes include, but are not limited to: (a) Changes to approved budgets, or funding, and (b) changes resulting from DOE policy directives and regulatory or statutory requirements.

Disposition. A general term for those activities that follow completion of program mission, including, but not limited to, stabilization, deactivation, decontamination, decommissioning, dismantlement, and/or reuse of physical assets. It is used as a general term for those project types that follow mission completed. (DOE O 430.1)

Duration. The number of work periods (not including holidays or other non-working periods) required to complete an activity or other project element. Usually expressed as workdays or workweeks. Sometimes incorrectly equated with elapsed time.

Earned Value (EV). (1) A method for measuring project performance. It compares the value of work performed (BCWP) with the value of work scheduled (BCWS) and the cost of performing the work (ACWP) for the reporting period and/or cumulative to date. See also ACTUAL COST OF WORK PERFORMED, BUDGETED COST OF WORK SCHEDULED, BUDGETED COST FOR WORK PERFORMED, COST VARIANCE, COST PERFORMANCE INDEX, SCHEDULE VARIANCE, AND SCHEDULE PERFORMANCE INDEX. (2) The budgeted cost of work performed for an activity or group of activities.

End Item. The product/deliverable of a specific type of procurement action. To qualify as an end item, the procurement action product or deliverable is to be a stand-alone unit that meets all requirements and performs its intended function/mission without any additional components, infrastructure support or supporting assemblies. For example, a fire truck, a mobile crane, an earth mover.

Engineering Change. An approved change to controlled identification documentation. An engineering change proposal is used to recommend an engineering change. There are typically two classes of engineering changes: (a) Class 1: Changes of configuration, which affects Departmental interest and requires approval from the appropriate approval authority or designated representative. Class 1 engineering changes are those which affect: (1) technical baseline requirements, and/or (2) non-technical contractual provisions such as fee, incentives, cost, schedule, guarantees, or deliveries. (b) Class 2: Changes to a product that do not affect any of the Class 1 engineering change requirements. The Department's approval prior to implementation is not required, although such changes are subject to post-facto classification review by the project office. Other distinctions may exist and are documented in the PEP. (DOE 4700.1, chg 1)

Estimate At Completion (EAC). The current estimated cost for program authorized work. (EIA-748)

Estimate To Complete (ETC). Estimate of costs to complete all work from a point in time to the end of the project or program. (EIA-748)

Estimated Cost. An anticipated cost for applied work scope. (EIA-748)

Executability Review. Executability Reviews are organized and conducted for all projects. For Major Systems, the executability review is organized and conducted by OECM. For non-Major Systems, the review is to be organized and conducted by the program, using independent reviewers who are not assigned or working on the project at the contractor or field level. Executability reviews assess the project and validate the plans as executable within the APB. The review will examine the work breakdown structure, cost, schedule, design, management, control, integration and other areas to ascertain the maturity of the project planning and organization and the probability of success. The results of the review, along with recommendations and remedial actions are submitted to OECM for review and presented to the AE and ESAAB prior to CD-3. The data from the executability review will be considered by the SAE/AE in making Critical Decision-3.

Execution. A term coined to define the time period in a project's life cycle between CD-1 and CD-4, i.e., all preliminary design, final design, and construction/remediated activities and actions.

Facilities. Buildings and other structures; their functional systems and equipment, including site development features such as landscaping, roads, walks, and parking areas; outside lighting and communications systems; central utility plants; utilities supply and distribution systems; and other physical plant features. (DOE O 430.1)

Fair Value Cost Estimates. Used to check the cost of proposed designs or provide benchmarks for scope to be outsourced to others.

Fast Tracking. Compressing the project schedule by overlapping activities that would normally be done in sequence, such as design and construction. Increasingly overlapping activities increase the risk of accomplishing those activities on time and at cost.

Final Design. Completion of the design effort and production of all the approved design documentation necessary to permit procurement. Construction, testing, checkout, and turnover to proceed. Final design occurs between CD-2 and CD-3.

Fixed Price Contracts. Fixed price contracts provide for a firm price or, under appropriate circumstances, may provide for an adjustable price for the supplies or services that are being procured. In providing for an adjustable price, the contract may fix a ceiling price, target price (including target cost), or minimum price. Unless otherwise provided in the contract, any such ceiling, target, or minimum price is subject to adjustment only if required by the operation of any contract clause that provides for equitable adjustment, escalation, or other revision of the contract price upon the occurrence of an event or a contingency. (DOE 4700.1, chg 1)

Fixed Price Incentive Fee Contract. A type of contract where the buyer pays the seller a set amount (as defined by the contract), and the seller can earn an additional amount if it meets or exceeds defined performance criteria.

Full Operating Capability (FOC).

Functional Organization. An organization structure in which staff are grouped hierarchically by specialty (e.g., production, marketing, engineering, and accounting at the top level; with engineering, further divided into mechanical, electrical, and others).

General Plant Projects (GPP). Congress has recognized DOE's need to provide for miscellaneous construction items that are required during the fiscal year and which cannot be specifically identified beforehand. Congress provides, annually, an amount for these purposes under the title of General Plant Projects. (DOE 4700.1, chg 1)

Independent Cost Estimate (ICE). A "bottoms-up" documented, independent cost estimate that has the express purpose of serving as an analytical tool to validate, cross-check, or analyze cost estimates developed by project proponents. (DOE 4700.1, chg 1)

Independent Cost Review (ICR). An essential project management tool used to analyze and validate an estimate of project costs. An independent cost review is typically conducted on all projects at the point of baseline approval. Such reviews may be required by Congress,

DOE management, Headquarters program offices, or field project management staff. The requiring office or agency will provide specific requirements for such reviews. An ICR may be performed by an independent internal or external organization.

Independent Evaluation (Review). An evaluation, made outside the normal advocacy chain, of a project's status or condition. In the project management system, it is made by the Office of Program/Project Management in its role of independent monitoring. It will consist of independent evaluation of all pertinent factors in order to provide a condition rating or detailed analysis of the project or system situation. Independent evaluations will typically be provided in conjunction with Headquarters reporting to senior DOE management; advisory board decision reviews; or other purposes associated with the program planning and budgeting system, acquisition, or other DOE management control and direction processes. These independent evaluations are to be based on knowledge of the project and related institutional matters. The Office of Program/Project Management will obtain this knowledge through reports from the project management and program organizations; conduct of field and Headquarters reviews with the program organization, the Departmental managing office, and principal contractors; and direct communication and discussion of project matters with the DOE managing and program offices.

Independent Review (IR). IRs are critical in assessing the performance and health of projects, providing the opportunity to identify potential problems and risks, and formulate plans to correct problems. An IR is conducted by a non-proponent of the project. The IR may be a science-based or engineering-oriented peer review, a review of the project management structure and interrelationships between key organizational components, a review targeted to a specific issue such as cost or budget, a review covering safety, or a combination thereof. Independent reviews may be combined for efficiency, as appropriate.

Initial Operating Capability (IOC). The point at which a project is sufficiently complete and its performance has been demonstrated and it has met the technical threshold criteria in the APB. It is not reaching full, steady-state operations.

Initiation. A term coined to define the time period in a project's life cycle up to and including CD-0, i.e., activities and actions prior to pre-acquisition planning/preconceptual design.

Integrated Project Team (IPT). An IPT is a cross-functional group of individuals organized for the specific purpose of delivering a project to an external or internal customer. The IPT should be committed to a common purpose and approach for which they hold themselves mutually accountable. IPTs are the means through which the acquisition process is implemented. Members of an IPT represent technical, manufacturing, business, contracting and support functions and organizations which are critical to developing, procuring and supporting the product.

Integrated Safety Management (ISM). The application of the integrated safety management system (ISMS) to a project or activity. The fundamental premise of ISM is that accidents are preventable through early and close attention to safety, design, and operation, and with

substantial stakeholder involvement in teams that plan and execute the project, based on appropriate standards.

Integrated Safety Management System (ISMS). An overall management system designed to ensure that environmental protection, worker and public safety is appropriately addressed in the planning, design, and performance of any task.

Internal Replanning. Replanning actions for remaining work scope. A normal program control process accomplished within the scope, schedule, and cost objectives of the program. (EIA-748)

Key Cost Parameters (KCP). Identify the total cost of the project (TPC), and in general include direct costs such as research and development, test, construction, remediation, procurement, fabrication, services, transition, and startup. Costs of quality, environment, safety, occupational health as well as the cost of acquisition items procured with operations and maintenance funds and also included, as well as indirect costs not directly attributable to the project but resulting from the project such as infrastructure costs. At a minimum, the TPC and the TEC is a KCP and a KPP, respectively.

Key Performance Parameters (KPP). A vital characteristic of a project or facility mission. A characteristic, function, requirement, or design basis, that if changed, would have a major impact on the facility or system performance, schedule, cost and/or risk, or the ability of an interfacing project to meet its mission requirements. Thus, a KPP may be a performance, design or interface requirement. Parameters that are appropriate for KPPs are those that express performance in terms of accuracy, capacity, throughput, quantity, processing rate, purity, or others that define how well a system, facility or other project will perform.

Key Schedule Parameters (KSP). Decision points, major milestones, deliverables, initial operation and other critical system events. Mandatory schedule parameters include all phases of the project, major decision points, and initial operation. Schedule parameters are established through an interactive process that proceeds integrally with the technical and cost processes. Critical path activities, events, milestones and resources are developed using a disciplined approach and are properly integrated with all other appropriate events.

Lead Program Secretarial Officer (LPSO). The individual assigned line management responsibility and accountability for Headquarters and field operations and to which one or more multi-program field offices directly report. (DOE 4700.1, chg 1)

Level of Effort (LOE). Effort of a general or supportive nature usually without a deliverable end product. An activity (e.g., vendor or customer liaison) that does not readily lend itself to measurement of discrete accomplishment. It is generally characterized by a uniform rate of activity over a specific period of time. Examples are supervision, program administration, and contract administration. LOE tasks receive budgeted cost for work performed, based upon the passage of time, not measured output.

Life Cycle Cost (LCC). The sum total of the direct, indirect, recurring, nonrecurring, and other related costs incurred or estimated to be incurred in the design, development, production, operation, maintenance, support, and final disposition of a major system over

its anticipated useful life span. Where system or project planning anticipates use of existing sites or facilities, restoration, and refurbishment costs should be included. (NASA 7120.5A)

Life Cycle Costing. The concept of including acquisition, operating, and disposal costs when evaluating various alternatives.

Line-Item Projects. Projects that are specifically reviewed and approved by Congress. Projects with a total project cost greater than \$5 million are categorized as line item projects.

Line Manager. (1) The manager of any group that actually makes a product or performs a service. (2) A functional manager.

Long-Lead Procurement Items. Those items of equipment and/or construction materials that require an order date prior to the estimated physical construction start to assure availability at the time needed to avoid delaying the construction performance.

Major System (MS) Projects. Any project or system of projects having a TPC of \$750M or greater, or any other project so designated by the Deputy Secretary. Projects may be classified as MS either solely by the Deputy Secretary or by the Deputy Secretary in response to recommendations from the appropriate Under Secretary. OECM maintains and periodically publishes a list of MS projects.

Management Reserve An amount of the total allocated budget withheld for management control purposes, rather than assigned for the accomplishment of a specific task or set of tasks. It is not a part of the Performance Measurement Baseline.

Master Schedule. A summary-level schedule that identifies the major activities and key milestones. See also MILESTONE SCHEDULE.

Matrix Organization. Any organizational structure which defines the manner in which project and functional organizations exist and their reporting relationships.

Milestone Schedule. A summary-level schedule that identifies the major milestones. See also MASTER SCHEDULE.

Milestone. A schedule event marking the due date for accomplishment of a specified effort (work scope) or objective. A milestone may mark the start, an interim step, or the end of one or more activities. (EIA-748)

Mission Need. A required capability within DOE's overall purpose, including cost and schedule considerations. When the mission analysis, or studies directed by appropriate executive or legislative authority, identify a deficiency in existing capabilities or an opportunity, this will be set forth as justification for purposes of system acquisition approvals, planning, programming, and budget formulation. (DOE 4700.1, chg 1)

Mitigation. Taking steps to lessen risk by lowering the probability of a risk event's occurrence or reducing its effect should it occur.

Monte Carlo Analysis. A schedule risk assessment technique that performs a project simulation many times in order to calculate a distribution of likely results.

Network Schedule. A schedule format in which the activities and milestones are represented along with the interdependencies between activities. It expresses the logic (how the program will be accomplished) and the timeframes (when). Network schedules are the basis for critical path analysis, a method for identification and assessment of schedule priorities and impacts. (EIA-748)

Objective Value. That dollar value desired by the user and which the program manager is contracting for or otherwise attempting to obtain.

Organizational Breakdown Structure (OBS). A depiction of the project organization arranged to indicate the line reporting relationships within the project context.

Organizational Planning. Identifying, documenting, and assigning project roles, responsibilities, and reporting relationships.

Organization Structure. The hierarchical arrangement for the management organization for a program, graphically depicting the reporting relationships. The organizational structure will be by work team, function, or any organization units that are used by the company. (EIA-748)

Other Project Costs (OPC). Costs related to engineering, development, startup, and operations. These activities/costs and allowances are essential for project execution, but are not considered part of the normal capital system/facility acquisition cost. They are operating/expense funded.

Non-Major System Projects. Any project or system of projects having a TPC between \$5M and \$750M, or any other project so designated by the Deputy Secretary.

Parameter. A determining factor or characteristic. Usually related to performance in developing a system.

Parametric Estimating. An estimating technique that uses a statistical relationship between historical data and other variables (e.g., square footage in construction, lines of code in software development) to calculate an estimate.

Pareto Diagram. A histogram, ordered by frequency of occurrence, that shows how many results were generated by each identified cause.

Percent Complete (PC). An estimate, expressed as a percent, of the amount of work that has been completed on an activity or group of activities.

Physical Construction Start. For purposes of reporting construction progress, the date on which work at the site physically starts, including work on site preparation, temporary construction, and any earth moving. The start date of construction of permanent facilities should also be indicated. (DOE 4700.1, chg 1)

Planned Finish Date . See SCHEDULED FINISH DATE.

Planned Start Date . See SCHEDULED START DATE.

Planning Package. A logical aggregate of work, usually future efforts that can be identified and budgeted, but which is not yet planned in detail at the work package or task level. (EIA-748)

Preliminary Design. Continues the design effort utilizing the conceptual design and the project design criteria as a basis for project development. Preliminary design develops topographical and subsurface data and determines the requirements and criteria that will govern the definitive design. Tasks include preparation of preliminary planning and engineering studies, preliminary drawings and outline specifications, life cycle cost analysis, preliminary cost estimates, and scheduling for project completion. Preliminary design provides identification of long-lead procurement items and analysis of risks associated with continued project development. Preliminary design occurs between CD-1 and CD-2. For a detailed description of the services provided during preliminary design, see Department of Energy Acquisition Regulation (DEAR) 936.605c and 952.236.70.

Program. An organized set of activities directed toward a common purpose or goal undertaken or proposed in support of an assigned mission area. A program is characterized by a strategy for accomplishing a definite objective(s), which identifies the means of accomplishment, particularly in quantitative terms, with respect to manpower, materials, and facilities requirements. Programs usually include an element of ongoing activity and are typically made up of technology based activities, projects, and supporting operations. See ACQUISITION PROGRAM/PROJECT. (DOE 4700.1, chg 1)

Program Evaluation. A determination of program condition based on a review of cost, schedule, technical status, and performance in relation to mission area assignments, program objectives, approved strategy, and milestones. Evaluations made by the responsible line program organization and outside the advocacy chain by the Office of Program/Project Management. In all cases, program evaluations are to be based on knowledge of the actual program status, performance, problems, and significant development in approval; review; and environment, safety, health, and quality assurance processes. (DOE 4700.1, chg 1)

Program Management. Management responsibility and authority for specific programs will normally be delegated by the cognizant Program Secretarial Officer. The Headquarters' functions of program management includes planning and developing the overall program; establishing broad priorities; providing policy and broad program direction; preparing and defending the budget; establishing the technical performance, scope, schedule, and cost requirements for projects; controlling DOE Headquarters-level milestones; integrating all components of the program; providing public and private sector policy liaison; expediting Headquarters interface activities and follow-up actions; and retaining overall accountability for program success. The field function includes implementing these program activities, controlling field-level milestones, and providing major support to the Headquarters programming budgeting and processes. (DOE 4700.1, chg 1)

Program Manager. An official who has been assigned responsibility for accomplishing a specifically designated unit of work effort, or group of closely related efforts, established to achieve stated or designated objectives, defined tasks, or other units of related effort on a schedule, funded as part of the project. The Program Manager is responsible for the

planning, controlling, and reporting of the project, and for the management of a specific function or functions, budget formulation, and execution of the approved budget. The Program Manager receives an approved funding program from the Office of the Controller identifying program dollars available to accomplish the assigned function.

Program Objectives. A statement or set of statements defining the purposes and goals to be achieved during performance of a program to fulfill a DOE mission including the technical capabilities, cost, and schedule goals.

Program Office. The Headquarters organizational element responsible for managing a program.

Program Secretarial Officer (PSO). A senior outlay program official which includes the Assistant Secretaries for Conservation and Renewable Energy (CE), Defense Programs (DP), Fossil Energy (FE), Nuclear Energy (NE), Environmental Restoration and Waste Management (EM), and the Directors of Energy Research (ER), Civilian Radioactive Waste Management (RW), and New Production Reactors (NP).

Project. In general, a unique effort that supports a program mission, having defined start and end points, undertaken to create a product, facility, or system, and containing interdependent activities planned to meet a common objective or mission. A project is a basic building block in relation to a program that is individually planned, approved, and managed. A project is not constrained to any specific element of the budget structure (e.g., operating expense or plant and capital equipment). Construction, if required, is part of the total project. Authorized, and at least partially appropriated, projects will be divided into two categories: major projects and other projects. Projects include planning and execution of construction, renovation, modification, environmental restoration, decontamination and decommissioning efforts, and large capital equipment or technology development activities. Tasks that do not include the above elements, such as basic research, grants, ordinary repairs, maintenance of facilities, and operations are not considered projects. See ACQUISITION PROGRAM/PROJECT. (DOE O 430.1)

Project Charter. A document issued by senior management that provides the Program Manager with the authority to apply organizational resources to project activities.

Project Data Sheet (PDS). A generic term defining the document that contains summary project data and the justification required to include the entire project effort as a part of the Departmental budget. PDSs can also be submitted to present PED funds, and construction funds. Specific instructions on the format and content of PDSs are contained in the annual budget call, and DOE O 5100.3, Field Budget Process. (DOE 4700.1, chg 1)

Project Design Criteria. Those technical data and other project information identified during the project initiation and definition (conceptual design, and/or preliminary design phases). They define the project scope, construction features and requirements, and design parameters; applicable design codes, standards, and regulations; applicable health, safety, fire protection, safeguards, security, energy conservation, and quality assurance requirements; and other requirements. The project design criteria are normally

consolidated into a document which provides the technical base for any further design performed after the criteria are developed. (DOE 4700.1, chg 1)

Project Engineering and Design (PED). A design fund established for program/project use on preliminary design and final baseline development, and/or a statement of work/ request for proposal for a design/build contract. PED funding begins with submission for funds during the pre-project phase and continues through final design completion. PED funds are not to be used for implementation, development, construction, long-lead procurements or major items of equipment. PED fund requirements are developed from historical data or parametric estimates. The objectives for the use of PED funds are to improve the probability of an accurate Performance Baseline for the project; establish the APB after the Preliminary Design is completed; and improve the DOE's Planning, Programming & Budgeting process for the acquisition of materiel capabilities. Completed conceptual design is a prerequisite for allocation of PED funds.

Project Execution Plan (PEP). The PEP is the primary agreement on project planning and objectives between the Headquarters Program Office and the Field, which establishes roles and responsibilities and defines how the project will be executed. The PEP, once approved, becomes a significant tool for the project manager through the life of the project. The Headquarters or Field program manager and/or the Federal project manager initiates a PEP. Development of the preliminary PEP can be started by the prime contractor or M&O/M&I at the same time as development of the AS or shortly after. The two plans should be synchronized. If the approved AS indicates that the M&O/M&I contractor has a role in the acquisition of the project as prime contractor/integrator, the M&O/M&I contractor may participate with DOE in development of the final PEP.

Project Interface. A point forming a common boundary between a project and any other project or non-project entity, activity, or service. An interface provides a means or a point of interaction/communication between a project's systems, disciplines and organizations, and those of all other systems, disciplines, and organizations.

Project Life Cycle. A collection of generally sequential project phases whose name and number are determined by the control needs of the organization or organizations involved in the project.

Project Management Body of Knowledge (PMBOK®). An inclusive term that describes the sum of knowledge within the profession of project management. As with other professions such as law, medicine, and accounting, the body of knowledge rests with the practitioners and academics who apply and advance it. The PMBOK® includes proven, traditional practices that are widely applied as well as innovative, and advanced practices that have seen more limited use.

Project Management. A management approach in which authority and responsibility for execution are vested in a single individual, at a level below the general manager, to provide focus on the planning, organizing, directing, and controlling of all activities within the project. PM within DOE requires the skillful application of knowledge, skills, tools, and

techniques to project activities in order to meet or exceed stakeholder needs and expectations from a project. In general terms, project management functions include assisting the program manager in preparing Headquarters documents and establishing key milestones and overall schedules. Other activities include developing and maintaining the project management plan; managing project resources; establishing and implementing management systems, including performance measurement systems; and approving and implementing changes to project baselines.

Project Manager (PM). An official who has been assigned responsibility for accomplishing a specifically designated unit of work effort, or group of closely related efforts, established to achieve stated or designated objectives, defined tasks, or other units of related effort on a schedule, funded as part of the project. The PM is responsible for the planning, controlling, and reporting of the project. (DOE 4700.1, chg 1)

Projectized Organization. Any organizational structure in which the project manager has full authority to assign priorities and direct the work of individuals assigned to the project.

Quality Assurance (QA). (1) The process of evaluating overall project performance on a regular basis to provide confidence that the project will satisfy the relevant quality standards. (2) The organizational unit that is assigned responsibility for QA. All the planned and systematic actions necessary to provide adequate confidence that a facility, structure, system, or component will perform satisfactorily in service. QA includes quality control, which comprises all those actions necessary to control and verify the features and characteristics of a material, process, product, or service to specified requirements. (DOE 4700.1, chg 1)

Quality Control (QC). (1) The process of monitoring specific project results to determine if they comply with relevant quality standards and identifying ways to eliminate causes of unsatisfactory performance. (2) The organizational unit that is assigned responsibility for quality control.

Quality Planning. Identifying which quality standards are relevant to the project and determining how to satisfy them.

Real Property. Land and/or improvements including interests therein, except public domain land.

Remaining Duration. The time needed to complete an activity.

Resource Leveling. Any form of network analysis in which scheduling decisions (start and finish dates) are driven by resource management concerns (e.g., limited resource availability or difficult-to-manage changes in resource levels).

Resource-Limited Schedule. A project schedule whose start and finish dates reflect expected resource availability. The final project schedule should always be resource-limited.

Responsibility Assignment Matrix (RAM). A structure that relates the project organization structure to the work breakdown structure to help ensure that each element of the project's scope of work is assigned to a responsible individual.

Reviews. A determination of project or system acquisition conditions based on a review of project cost, schedule, technical status, and performance in relation to program objectives, approved requirements, and baseline project plans. These reviews provide critical insight into the plans, design, cost, schedule, organization, and other aspects of the project. They provide the project and senior management with information on which to base critical and non-critical decisions and to make changes which will increase the project's probability of success. Reviews are authorized by the SAE, AE, PSO responsible line managers, operations/field office manager or Program Managers. In all cases, reviews are based on knowledge of the actual project status, performance, problems, and significant development in both the actual execution activities as well as required institutional approval, licensing, review, and environmental processes. The nature of a review requires a critical approach to reviewing and analyzing the project. This generally requires the reviewers to be outside the project, program, and organization in order to avoid inadvertently biasing the analysis. Examples of review include independent reviews, executability reviews, and independent baseline reviews.

Risk. An event that might happen to the detriment of a program, project or activity. It is described by the probability that the event will occur and the consequence of the extent of loss from the occurrence. The opposite of a "risk" is an "opportunity" which also has estimated impact (savings) and probability (likelihood of occurrence).

Risk Event. A discrete occurrence that may affect the project for better or worse.

Risk Identification. Determining which risk events are likely to affect the project.

Risk Management. The act or practice of controlling risk. An organized process that reduces the risk of an activity or project which will maximize the potential for success of the activity.

Risk Mitigation. A risk handling strategy that decreases risk either by lowering the consequence of a risk event, or by a combination of reducing the probability that a risk event will occur and reducing the consequence of that event.)

Risk Quantification. Evaluating the probability of risk event occurrence and effect.

Risk Response Control. Responding to changes in risk over the course of the project.

Risk Response Development. Defining enhancement steps for opportunities and mitigation steps for threats.

S-Curve. Graphic display of cumulative costs, labor hours, or other quantities plotted against time. The name derives from the S-like shape of the curve (flatter at the beginning and end, steeper in the middle) produced on a project that starts slowly, accelerates, and then tails off.

Schedule. A plan that defines when specified work is to be done to accomplish program objectives on time. (EIA-748)

Schedule Control. Controlling changes to the project schedule and preparing workaround plans to mitigate the impact of adverse results/delays by others.

Schedule Variance (sv). A metric for the schedule performance on a program. It is the algebraic difference between earned value and the budget (Schedule Variance = Earned Value – Budget). A positive value is a favorable condition while a negative value is unfavorable. The SV is calculated in dollars or work units and is intended to compliment network analysis, not supercede or replace it. (EIA-748)

Scheduled Finish Date. The date shown on the project master schedule by which all project activities (including tasks, turnover, and appropriate actions) are to be complete.

Scheduled Start Date. The date shown on the project master schedule by which all project activities (including task and actions) are to be started.

Site. A geographic entity comprising land, buildings, and other facilities required to perform program objectives. Generally a site has, organizationally, all the required facilities management functions. That is, it is not a satellite of some other site. (DOE 4700.1, chg 1)

Staff Acquisition. Obtaining the human resources needed, assigned to, and working on the project.

Statement of Work (sow). A narrative description of products or services to be supplied under contract.

System. A collection of interdependent equipment and procedures assembled and integrated to perform a well-defined purpose. It is an assembly of procedures, processes, methods, routines, or techniques united by some form of regulated interaction to form an organized whole.

Tailoring. A flexible approach to program oversight and review, where project criteria are applied based on the complexity, cost, and risks of each acquisition project or program. In a tailored approach, requirements are addressed to extent necessary and practical for managing each project. Tailoring may involve consolidation of decisions, documentation, and concurrency of processes. It requires all elements of the process to be addressed with adequate detail adapted to the complexity and risks associated with the project. Tailoring is to be applied to all programs and projects.

Technical Baseline. a) Refers to those performance and design requirements, criteria, and characteristics derived from mission need that provides the basis for project direction and execution. b) A configuration identification document or a set of such documents formally designated and approved by DOE at a specific time. (The time need not be the same for each document in the set.) The Conceptual Design Report (CDR) is the initial project technical baseline. The CDR, plus DOE approved changes, constitute the technical baseline.

Technology. A demonstration by experiment of the technical feasibility of alternative inventive concepts. This category may concern itself with processes, components, equipment, subsystems, or an initial system prototype, and may encompass: experimental exploitation and refinement of a known phenomenon; demonstration of the acceptability of the technical and operational characteristics of one or more specific concepts; and preliminary system studies responsive to a particular problem including system analysis,

tradeoff, preliminary cost/benefit studies, and planning and programming studies. (DOE 4700.1, chg 1)

Threshold Value. The value beyond which project performance is seriously degraded. The project becomes too costly, or the project is no longer timely. Also, the difference between the APB and the objective value. Threshold values are set individually for each project based on the characteristics of the project, e.g., maturity, risk, complexity.

Total Estimated Costs (TEC). The TEC of a project is the specific cost of the project, whether funded as an operating expense or construction. It includes the cost of land and land rights; engineering, design, and inspection costs; direct and indirect construction costs; and the cost of initial equipment necessary to place the plant or installation in operation, whether funded as an operating expense or construction. In recent years, Congress has authorized amounts for projects exclusive of amounts for the construction planning and design. In these cases, the amount authorized is used as a base for TEC, even though it does not include planning and design costs. These costs are typically capitalized.

Total Project Cost (TPC). The TPC is synonymous with the cost of the APB. It consists of all the costs included in the Total Estimated Cost (TEC) of a project plus Other Project Costs (OPC) such as pre-construction costs, that include conceptual design and research and development, as well as costs associated with the pre-operational phase, such as training and startup. In budget terms, it is the sum of the technical baseline, schedule baseline, and cost baseline. It includes all research and development (R&D), operating, plant, and capital equipment costs specifically associated with project construction and may, when planned, go up to the point of routine operations.

Undistributed Budget (UB). Budget associated with specific work scope or contract changes that have not been assigned to a control account or summary-level planning package. (EIA-748)

User. The entity that ultimately will operate or otherwise use the system being developed. When the project objective is to demonstrate to the private sector the utility or feasibility of a given system for commercial application, the identity of the ultimate user may not be known. In such case, only the most likely type of user (utility, constructor, energy supplier) may be identifiable. (DOE 4700.1, chg 1)

Validation. The process of evaluating project planning, development, baselines and proposed funding prior to inclusion of new project or system acquisition in the DOE budget. It requires a review of project planning and conceptual development documentation, as well as discussion with the program or field element and principle contributing contractors to determine the source basis, procedures, and validity of proposed requirements, scope, cost schedule, funding, and so forth. Findings and recommendations resulting from the validation process will be provided for use in the annual budget formulation. (DOE 4700.1, chg 1)

Value Management (VM). Value engineering is organized effort directed at analyzing the functions of systems, equipment, facilities, services, and supplies for the purpose of

achieving the essential functions at the lowest life cycle cost consistent with required performance, quality, reliability and safety. (OMB Circular A-131)

WBS/OBS Responsibility Matrix. An integration of the WBS and the OBS to result in the assignment of one organizational element to each cost account.

Work Breakdown Structure (WBS). A product-oriented grouping of project elements that organizes and defines the total scope of the project. The WBS is a multi-level framework that organizes and graphically displays elements representing work to be accomplished in logical relationships. Each descending level represents an increasingly detailed definition of a project component. Project components may be products or services. It is the structure and code that integrates and relates all project work (technical, schedule, and cost) and is used throughout the life cycle of a project to identify and track specific work scopes. (DOE Glossary)

Work Breakdown Structure Dictionary. A listing of work breakdown structure elements with a short description of the work scope content in each element. (EIA-748)

Work Package. A task or set of tasks performed within a control account. (EIA-748)

Workaround. A response to a specific negative schedule event. Distinguished from a contingency plan in that a workaround is not planned in advance of the occurrence of the risk event.

Acronyms

ACWP	Actual Cost of Work Performed
AE	Acquisition Executive
AFP	Approved Funding Program
ALARA	As Low As Reasonably Achievable
AMS	Acquisition Management System
...	ANSI American National Standards Institute
APB	Acquisition Performance Baseline
AS	Acquisition Strategy
ASME	American Society of Mechanical Engineers
BAC	Budget at Completion
BCWP	Budgeted Cost of Work Performed
CADD	Computer Aided Drafting and Design
BCC	Baseline Change Control
BCWS	Budgeted Cost of Work Scheduled
BR	Budget Request
CA	Control Account
CAA	Clean Air Act
CBB	Contract Budget Baseline
CCB	Change Control Board
CD	Critical Decision
CDR	Conceptual Design Report
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFO	Chief Financial Officer
CFR	Code of Federal Regulations
CO	Contracting Officer
COO	Chief Operating Officer
COTR	Contracting Officer's Technical Representative
COTS	Commercial Off-the-Shelf
CMS	Corrective Measures Study
CPI	Cost Performance Index
CWA	Clean Water Act
CY	Calendar Year
D&D	Decontamination and Decommissioning
DEAR	Department of Energy Acquisition Regulation
DoD	U.S. Department of Defense
DOE	U.S. Department of Energy

DOE-MR	U.S. Department of Energy Management Reserve
DNFSB	Defense Nuclear Facilities Safety Board
DP	Defense Programs
DSA	Documented Safety Analysis
DQO	Data Quality Objectives
EAC	Estimate at Completion
EE/CA	Environmental Evaluation/Compliance Assessment
EIA	Electronic Institute of America
EIR	External Independent Review
EIS	Environmental Impact Statement
EM	Environmental Management
EM-PDRI	Environmental Management Project Definition Rating Index
EPA	U.S. Environmental Protection Agency
ER	Environmental Restoration
ESAAB	Energy Systems Acquisition Advisory Board
ESH&Q	Environmental Safety, Health and Quality
ETC	Estimate to Complete
EV	Earned Value
EVMS	Earned Value Management System
F&OR	Functional and Operational Requirements
F&Rs	Functions and Requirements
FAR	Federal Acquisition Regulations
FFCA	Federal Facilities Compliance Act
FM	DOE Office of Field Management
EVMS	Earned Value Management System
FO	Facilities and Operations
FOM	Field Office Manager
FONSI	Finding of No Significant Impact
FSAR	Final Safety Analysis Report
FY	Fiscal Year
FYP	Future Year Program
FYWP	Fiscal Year Work Plan
GAO	General Accounting Office
GPG	Good Practice Guide
GPP	General Plant Project
GPRA	Government Performance and Results Act
HAD	Hazard Assessment Documentation
HAR	Hazards Analysis Report
HLW	High Level Waste
HR	Human Resources
ICD	Interface Control Document

ICE	Independent Cost Estimate
ICR	Independent Cost Review
IFC	Issued for Construction
IFD	Issued for Design
IIR	Internal Independent Review
IMS	Integrated Master Schedule
IOC	Initial Operating Capability
IPABS	Internal Planning, Accountability, and Budget System
IPL	Integrated Priority List
IPR	Independent Project Review
IPS	Integrated Project Schedule
IPT	Integrated Project Team
IR	Independent Review
ISM	Integration Safety Management
ISMS	Integrated Safety Management System
ISO	International Standards Organization
IT	Information Technology
KCP	Key Cost Parameter
KPP	Key Performance Parameter
KSP	Key Schedule Parameter
LCAM	Life Cycle Asset Management
LLP	Long-Lead Procurement
LOE	Level of Effort
LPSO	Lead Program Secretarial Office
LWA	Limited Work Authorization
M&I	Management and Integration
M&O	Management and Operating
MEL	Master Equipment List
MEM	Management Evaluation Matrix
MIE	Major Items of Equipment
MNS	Mission Need Statement
MOU	Memorandum of Understanding
MS	Major System Project
MYSP	Multi-year Strategic Plan
NARA	National Archives and Records Administration
NCP	National Contingency Plan
NEPA	National Environmental Policy Act
NN	Nuclear Nonproliferation
NNSA	National Nuclear Security Administration
NPDES	National Pollution Discharge Elimination System
NQA-1	National Quality Assurance Standard - 1

NR	Naval Reactor
NRC	National Research Council
OBS	Organizational Breakdown Structure
OECM	Office of Engineering and Construction Management
OMB	Office of Management and Budget
OMBE	Office of Management, Budget and Evaluation
OOM	Operations Office Manager
OPC	Other Project Costs
OPEX	Operating/Expense
ORD	Operational Requirements Document
ORR	Operational Readiness Review
OSHA	Occupational Safety and Health Administration
OTB	Over Target Baseline
P&ID	Process and Instrumentation Diagram
PA	Preliminary Assessment
PARS	Project Assessment and Reporting System
PAS	Program Assistant Secretaries
PA&E	Program Analysis and Evaluation
PA/SI	Preliminary Assessment/Site Investigation
PBC	Performance-Based Contract
PBS	Project Baseline Summary
PCR	Project Closeout Report
PDD	Presidential Decision Directive
PDRI	Project Definition Rating Index
PDSA	Preliminary Documented Safety Analysis
PDS	Project Data Sheet
PED	Project Engineering and Design
PEP	Project Execution Plan
PERT	Program Evaluation and Review Technique
PI	Performance Indicator
PM	Project Manager
PMB	Performance Measurement Baseline
PMBOK	Project Management Book of Knowledge
PMCDP	Program/Project Management Career Development Program
PMI	Project Management Institute
PMP	Project Management Plan
PMS	Performance Measurement System
PPBS	Planning, Programming, Budgeting System
PPDS	Preliminary Project Data Sheet
PSAR	Preliminary Safety Analysis Report
PSO	Program Secretarial Officer

QA	Quality Assurance
QAP	Quality Assurance Plan
QAPP	Quality Assurance Program Plan
QC	Quality Control
QSL	Qualified Seller List
RA	Readiness Assessment
R&D	Research and Development
RAM	Reliability, Availability, Maintainability
RAWP	Removal Action Work Plan
RCRA	Resource Conservation and Recovery Act
RD	Requirements Document
RFA	RCRA Facility Assessment
RFI	RCRA Feasibility Investigation
RFP	Request for Proposal
RFQ	Request for Quotations
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
RSE	Remedial Site Evaluation
ROM	Rough Order of Magnitude
SAE	Secretarial Acquisition Executive
SAP	Sampling and Analysis Plan
SAR	Safety Analysis Report
S&M	Surveillance and Monitoring
SB	Small Business
SB/PP	Statement of Basis/Proposed Plan
SDB	Small Disadvantaged Business
SDD	System Design Description
SE	Systems Engineering
SEB	Source Evaluation Board
SES	Senior Executive Service
SI	Site Investigation
SOW	Scope of Work
SMS	Strategic Management Plan
SPI	Schedule Performance Index
SSC	Structure, System, Components
SV	Schedule Variance
T&PRA	Technical and Programmatic Risk Analysis
TEC	Total Estimated Cost (Capital)
TPC	Total Project Cost
TPCE	Total Project Cost Estimate
TQM	Total Quality Management

TSCA	Toxic Substances Control Act
TTR	Technical Task Report
UB	Undistributed Budget
VAR	Variance Analysis Report
VM	Value Management
WA	Work Authorization
	WBS Work Breakdown Structure

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